

**EREMOCORIS BOREALIS AND E. FERUS
(HETEROPTERA: LYGAEIDAE) AS HOUSEHOLD
PESTS IN PENNSYLVANIA AND
CONNECTICUT¹**

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ABSTRACT: An unusual infestation of the rhyparochromine lygaeid *Eremocoris borealis* is reported, the bugs congregating on the siding of a mountain home in Pennsylvania and causing a nuisance indoors. During hot, dry weather in August 1988, this seldom-collected species, a feeder on fallen birch and conifer seeds, apparently had migrated from the litter layer of the surrounding birch-hemlock forest. The related *E. ferus* is noted as creating a similar problem in Connecticut from late July to late August 1988. These appear to be the first records of North American rhyparochromines as household pests.

Excluding temporary ectoparasites of warmblooded animals (Cimicidae) and obligate hematophagous reduviids of medical importance (Triatominae), few North American Heteroptera are consistent household pests. Among phytophagous heteropterans, only the boxelder bug, *Boisea trivittata* (Say), is a recurrent nuisance in and around homes. Various true bugs, however, cause occasional problems indoors. Wheeler (1982) reviewed the scattered literature on these periodic invaders, noting that lygaeids of the genera *Blissus* (subfamily Blissinae) and *Nysius* (Orsillinae) have been mentioned most often among Lygaeidae that enter houses. Unusual infestations of the blissine *Ischnodemus falicus* (Say) and the lygaeine *Melacoryphus lateralis* (Dallas) also have been reported (Wheeler, 1982 and references therein). The so-called birch catkin bug, *Kleidocerys resedae* (Panzer), develops on mature seeds of birches, ericaceous shrubs, and other common landscape plants (Wheeler, 1976), and this ischnorhynchine lygaeid may congregate on sidewalks and enter houses (Wheeler, 1975).

During the hot, dry summer of 1988, a species of the largest lygaeid subfamily, Rhyparochrominae, created a problem for one Pennsylvania family. Herein, an outbreak of *Eremocoris borealis* (Dallas) is recorded, and a similar infestation of the related *E. ferus* (Say) in Connecticut during summer 1988 is noted.

Eremocoris borealis (Dallas)

Sweet (1977) raised this rhyparochromine of the tribe Drymini from

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synonymy under *E. ferus* (Say), stating that these cryptic species are behaviorally and reproductively isolated. The principal morphological character used to separate the two is tibial pilosity: *E. borealis* with hind tibia sparsely pilose, appearing nude; tibia with long, erect hairs in *E. ferus* (Sweet, 1977).

A seed bug of cool coniferous forests, *E. borealis* ranges in the East from Newfoundland south through New England and into Tennessee and North Carolina along the Appalachians; it occurs in Michigan and Wisconsin and in western North America is known from Alberta, British Columbia, Montana, and Oregon. Adults of this bivoltine lygaeid overwinter, and the bugs feed on fallen seeds of birch, *Betula* spp.; eastern hemlock, *Tsuga canadensis* (L.) Carr.; and red spruce, *Picea rubens* Sarg. (Sweet, 1964, 1977).

As characteristic inhabitants of the litter layer, rhyparochromine lygaeids are infrequently collected; many species are poorly represented in collections. It was somewhat surprising, then, that a pest control operator submitted rhyparochromine nymphs (on 15 September 1988) for identification, noting that the bugs were causing a severe problem in and around a house near Tower City (Schuylkill Co.), Pennsylvania. The nymphs had been collected dry and were in poor condition. To provide a more complete determination, additional specimens were requested. On 19 September one *E. borealis* adult (deposited in the Pennsylvania Department of Agriculture insect collection) was submitted with fourth and fifth instars of this species.

Two days later I visited the property to obtain details about the infestation and to see what plants were present on the grounds and in the surrounding area. No landscape plants in the small yard seemed likely to have favored an invasion by *E. borealis*, but the property was situated at the base of a mountain (elevation about 300m) and surrounded by a birch-hemlock forest. Trees present, in addition to sweet birch, *Betula lenta* L., and eastern hemlock, were American beech, *Fagus grandifolia* Ehrh.; black gum, *Nyssa sylvatica* Marsh.; and oaks, *Quercus* spp. Dominant understory plants were blueberries, *Vaccinium* spp.; hayscented-fern, *Dennstaedtia punctilobula* (Michx.) Moore; mountain laurel, *Kalmia latifolia* L.; and sweetfern, *Comptonia peregrina* (L.) J.M. Coult. The habitat was thus similar to that described for this species in New England (Sweet, 1964).

On 21 September, only one adult was collected by processing hemlock leaf litter in a Berlese funnel, but large numbers of *E. borealis* must have been present in the litter layer 4 to 6 weeks earlier. During August, the homeowner related that the bugs had amassed on siding, about 2 m from the ground, on the west side of the house. If such aggregation behavior

had been described by telephone, a boxelder bug problem would have been suspected.

While bugs were present on siding, other individuals (mostly nymphs, judging from the samples submitted for identification) invaded the house. They were observed crawling on the walls and carpet and were particularly annoying in the kitchen, where they infested cupboards, and the bathroom. A pest control specialist asked to alleviate the problem applied insecticide granules around the foundation of the house. Whether this treatment was responsible for the small numbers of *E. borealis* observed in late September is not known.

Eremocoris ferus (Say)

During summer 1988, *E. ferus* created a similar problem for a homeowner in Naugatuck, Connecticut. The bugs, first noticed about late July, congregated on the porch, especially under a rug. They were swept up each day, but more individuals would appear the following day, usually in mid-to-late afternoon. After contending with the infestation for nearly a month, the homeowner decided to have the porch sprayed with insecticide (D. Comstock and K.A. Welch, personal communication).

DISCUSSION

Eremocoris borealis and *E. ferus* can be added to the list of Lygaeidae recorded as household pests and to the unusual or miscellaneous problems that occasionally confront pest control specialists. Although some might dismiss such infestations as insignificant, Mallis (1982) emphasized that what a pest control operator or entomologist might consider minor can well be a major problem to the homeowner or tenant involved.

To my knowledge, these are the first records of North American members of the large lygaeid subfamily Rhyparochrominae creating a household nuisance. The distribution of *E. borealis* is not well known, owing to its long confusion with *E. ferus*. Because Sweet (1977) and Ashlock and Slater (1988) did not cite a Pennsylvania record for *E. borealis*, the present report represents the first for that state.

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BOOKS RECEIVED AND BRIEFLY NOTED

THE GENETICS OF SOCIAL EVOLUTION. M.D. Breed and R.E. Page, Jr. 1989. Westview Press, Boulder & San Francisco. 213 pp. \$36.50 sc.

Purpose of book is to initiate a synthesis of thought on how genetics structures the behavior of individual animals that live within complex social systems.

THE BUTTERFLY GARDEN. M. Tekulsky. 1985. Harvard Common Press, Boston. 144 pp. \$8.95 pbk.

Guide to gardening for butterflies and attracting them by the growing of common plants and flowers which they use for food and nectar.

SUPPLEMENT TO: A CATALOGUE CHECKLIST OF THE BUTTERFLIES OF AMERICA NORTH OF MEXICO. C.D. Ferris, ed. 1989. The Lepidopterists' Society, Memoir No. 3. 103 pp. \$6.00 for members of Lepidop. Soc., \$10 for non-members. Order from Dr., Charles V. Covell, Jr., Dep't. Biology, Univ. of Louisville, Louisville, KY 40292

This volume reflects nomenclatural changes published since Memoir No. 2, plus some corrections of errors in that work.

AN ANNOTATED CHECKLIST OF THE SPIDERS OF WASHINGTON. R.L. Crawford. 1988. Burk Museum, Univ. of Washington. 48 pp. \$4.00.

A checklist is presented of 760 spider species currently known from Washington State. Each entry includes reference to the best illustrated description and a list of coded Washington localities.